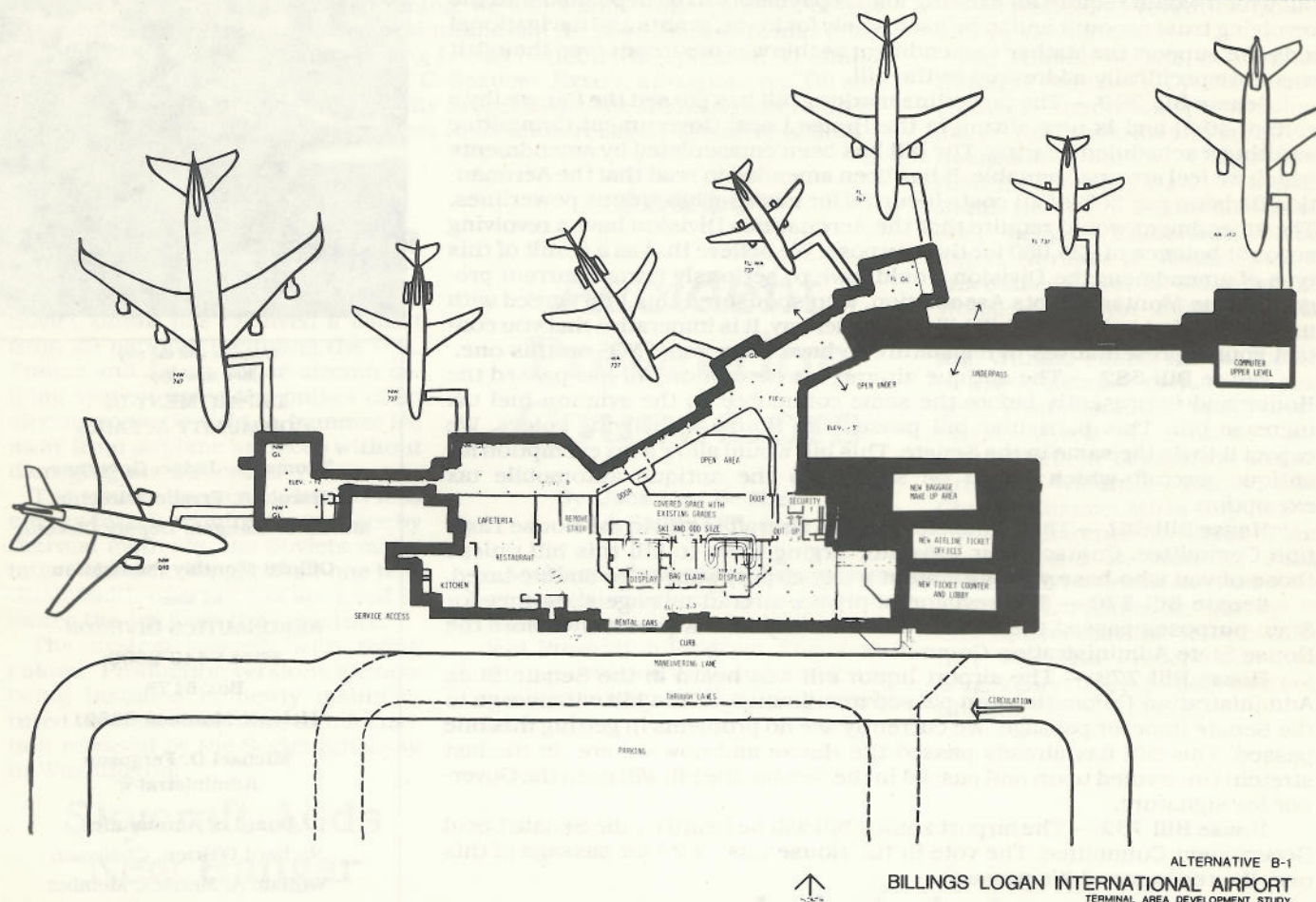


Montana and the Sky

Vol. 30, No. 3

MONTANA AERONAUTICS DIVISION

March, 1979



ALTERNATIVE B-1
BILLINGS LOGAN INTERNATIONAL AIRPORT
TERMINAL AREA DEVELOPMENT STUDY

Billings Airport Expansion

By 1980 the Billings Logan International Airport may sprout a third wing. The firm of Richardson and Associates from Seattle is studying the economic feasibility of expanding the facilities there.

Dale Norby, manager of the Billings Airport, stated that if the consultants find that the growth and revenue of the airport will justify the new construction, it would begin next summer and hopefully be finished by the winter of 1980.

Officials are considering the addition of a new wing to the terminal's

two-wing concourse, increased gate positions for loading and unloading planes, expanding ticket-counter space, doubling or tripling baggage facilities, and a new security system.

The new wing would stretch out eastward and provide more positions for aircraft to snuggle up to the terminal for loading and unloading without increasing the walking distance for passengers.

The new baggage system is necessary because four times each day five jets are on the ground at the same time. In the future the congestion

will be worse.

The additional ticket-counter space will be needed as the Billings airport becomes a stopping place for more airlines.

Presently there is a security checkpoint at each of the concourse's two wings. A third wing would require a 50% increase in security personnel involved in checking passengers. It is hoped that the consultants will find a way to combine the security check-out system into one central checkpoint. This would probably require a building modification.

Administrator's Column

Here's an update on the legislative bills being acted upon:

House Bill 60 — The aviation fuel tax increase bill has been heard in the Senate Taxation Committee. However, they have not gone into executive session yet to vote on the bill. Senator Mathers introduced an amendment to the bill which would require all existing loan repayments to be deposited into the revolving trust account and to be used solely for loans, grants and navigational aids. We support the Mather's amendment as this was our intent even though it was not specifically addressed in the bill.

Senate Bill 290 — The powerline marking bill has passed the Senate (by a vote of 46-3) and is now sitting in the House Local Government Committee awaiting a scheduled hearing. The bill has been emasculated by amendments which we feel are unacceptable. It has been amended to read that the Aeronautics Division pay 50% of all costs incurred for marking hazardous powerlines. The amendment would require that the Aeronautics Division have a revolving account balance of \$25,000 for this purpose. We believe that as a result of this type of amendment the Division would have to seriously curtail current programs. The Montana Pilots Association, who sponsored this bill, agreed with us and an effort to have the bill killed is underway. It is imperative that you contact your representatives in legislature to have them vote "NO" on this one.

House Bill 582 — The antique aircraft tax exemption bill has passed the House and is presently before the same committee as the aviation fuel tax increase bill. This particular bill passed the House with flying colors. We expect it to do the same in the Senate. This bill would allow a tax exemption for antique aircraft which would be similar to the antique automobile tax exemption.

House Bill 651 — The city tax levy bill on aircraft is still in the House Taxation Committee. Contact your legislator urging them to kill this bill unless those of you who base your aircraft at a city airport want to be double-taxed.

Senate Bill 370 — The revision of private aircraft mileage allowance for State purposes passed the Senate unanimously and is presently before the House State Administration Committee.

House Bill 779 — The airport liquor bill was heard in the Senate State Administration Committee and passed unanimously. This bill will now go to the Senate floor for passage. We currently see no problems in getting this one passed. This bill has already passed the House and now we are on the last stretch! Once voted upon and passed in the Senate, the bill will go to the Governor for signature.

House Bill 732 — The airport zoning bill will be heard by the Senate Local Government Committee. The vote in the House was 72-27 for passage of this one. We recommend it's passage.

* * * * *

I would encourage all of you aviation-oriented folks to get involved in all the above bills which will definately effect flying within our state. If you have any questions regarding these bills or any other bills, please feel free to contact our office.

* * * * *

I attended a meeting in Great Falls this month regarding the border crossing airports within Montana. Congressman Ron Marlenee participated in the meeting. The purpose of the meeting was to discuss some of the problems experienced in crossing the border from Canada into the United States. A delegation from Scobey expressed their desire to have the East Poplar port extend their hours to twenty-four hours per day.

* * * * *

John Smith, Western Director for the Civil Aeronautics Board, came to Montana to participate in a small community air service meeting held in Sidney March 14 and 15. We feel that the meeting proved very beneficial. Each community had the opportunity to voice their concerns about air service. While at the meeting Frontier Airlines discussed their plans to exit the highline and eastern Montana cities. They support Big Sky Airlines as the replacement carrier.

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THURBER'S CENTRAL HELENA

Administrator's Column

Boeing and DeHaviland airplane companies have agreed to do a study for Big Sky Airlines which would provide data on scheduling, fares, air routes, etc. By gathering data from each one of the eastern Montana communities involved Boeing's computer in Seattle will be able to provide vital fiscal information for better service to the highline route.

* * * * *

The Montana Aviation Trades Association Convention took place in Billings on March 15 to 17. Due to timing, we will feature some pictures of this convention in next month's issue of Montana and the Sky. There were many fine speakers who participated, including Lillard Heddin, who spoke on "Granular Application and Calibration"; and K. C. Spencer, Exxon, who spoke on "Oil and Energy." I appreciated the opportunity to speak with the MATA members, sharing with them the latest development in aviation-related legislative action.

USSR Patents De-Icing System

Aviation Daily reports that the Soviet Union has received a patent from 29 nations, including the U.S., France and Japan, for an aircraft de-icing system using the pulses of an electromagnetic field to hammer ice away from airplane surfaces without damaging the structure.

The system uses considerably less energy than is required to melt ice by thermal methods, the Soviets maintain. Pulses no longer than one ten-thousandth of a second are used to batter the ice from the structure.

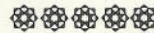
The system passed "with flying colors." Production versions are now being installed in newly manufactured aircraft, according to information released by the Soviet Embassy in Washington.

Skycraft Adds New Hangar

The general aviation facilities at the Lewistown Airport have been greatly improved recently with the addition of a 10,000 square foot heated hangar.

Construction began last summer and was completed November 1, 1978. The custom-built Behlen building was erected by Dover Construction Company of Lewistown. The new hangar is 100 feet by 100 feet with 16 foot high doors and can hold up to twenty planes at one time.

Willy Rimby of Skycraft stated in a letter to our office that they offer heated hangar storage (which will be especially beneficial to transit pilots) by the hour, night, day, week, month or year.



Accident Prevention Counselors

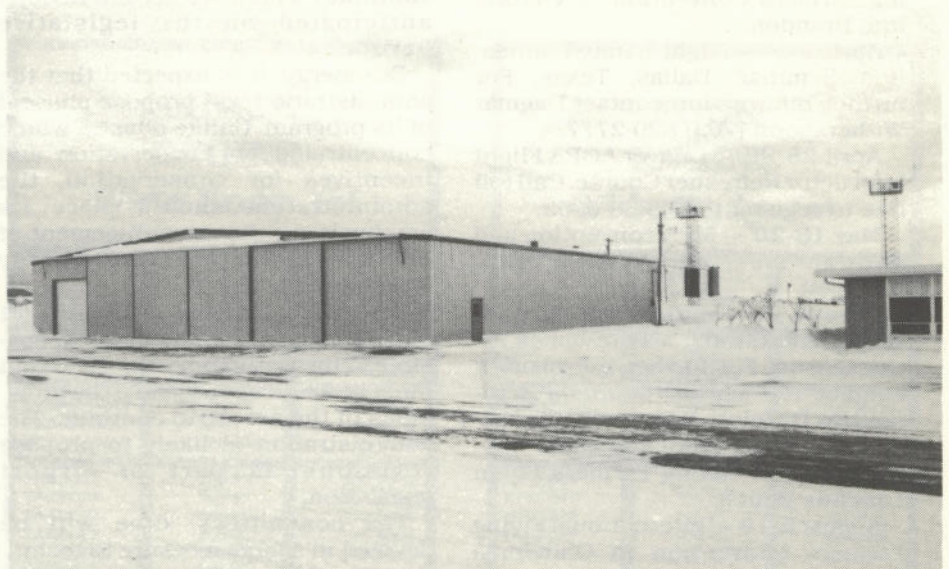
By: Jack Van De Riet
FAA Safety Officer

Accident Prevention Counselors are appointed by the Federal Aviation Administration to assist in the Accident Prevention Program. The counselor provides a very vital service to the community in the flying safety field.

If you have unanswered questions or concerns for safety that need attention, contact a counselor. They may not have the answer to everything, but they will point you in the right direction. Enjoyment, utility and safety in aviation are the counselor's goals, as well as yours. Let them help.

The Accident Prevention Counselors in Montana are:

Big Timber: Robert W. Ferguson; **Billings:** Thomas W. Lynch, Gerald E. Mobley, Robert A. Palmersheim, James Rothrock, Ralph Young (CAP); **Bozeman:** John W. Fisher (CAP), Albert C. Newby, David I. Stradley; **Butte:** George A. Wetherall; **Chester:** Joel Fenger; **Culbertson:** Dennis Elgen, Norman W. Rasmussen; **Dillon:** James A. Morris; **Glasgow:** Victor Wokal; **Glendive:** Edgar Justesen; **Great Falls:** Jens P. Spring; **Hamilton:** William Tubbs; **Havre:** Walter C. Hensley; **Helena:** Michael Ferguson, Jeffrey Morrison; **Kalispell:** Ted W. Parod, Myron K. Strand; **Laurel:** Keith Fitchett; **Lewistown:** Roger D. Gregson, Willard L. Rimby; **Libby:** Charlie Kuzmic; **Miles City:** Harry L. Corbin, Clarence R. Ugrin; **Plentywood:** Rollin G. Munson; **Polson:** Clyde H. Frederickson; **Red Lodge:** Armand J. Patenaude; **Shelby:** Don Coons; **Stevensville:** Robert L. Toomey; **Whitefish:** Frederick W. Lueneberg; **Valier:** Ora F. Lohse; **Wolf Point:** Christopher V. Kolstad.



Skycraft's custom built hangar can hold up to 20 planes at one time.

Attention: Airport Operators/Owners

Does your airport have a medium intensity lighting system? Is your system getting on in years? Are you experiencing problems with the regulator?

We have located a source of new heavy-duty, 4 Kw, constant current, 6.6A regulators for about \$300 each. These FAA approved regulators are in a warehouse in California and can be easily converted for 3-step brightness control. Or for VASI or other 6.6A add-on systems.

The cost is a fraction of the cost for new solid state regulators on the market.

We still have bulbs for most runway lighting systems, parts for Alnaco beacons and Manairco low intensity systems.

Our 24-inch windsock supply should be replenished in 45 days.

Contact Jerry Burrows, Montana Aeronautics Division, for further information regarding any of this equipment.

Calendar

March 30-April 1 — Colorado Flying Farmers Convention. Call (303) 484-4660 for reservations.

March 30-April 1 — Manitoba Flying Farmers Convention — Victoria Inn, Brandon.

April 1-3 — Flight Safety Foundation Seminar, Dallas, Texas. For further information contact Dagmar Witherspoon (703) 820-2777.

April 28-30 — Denver AOPA Flight Instructor Refresher Course. Call toll free to register (800) 638-0853.

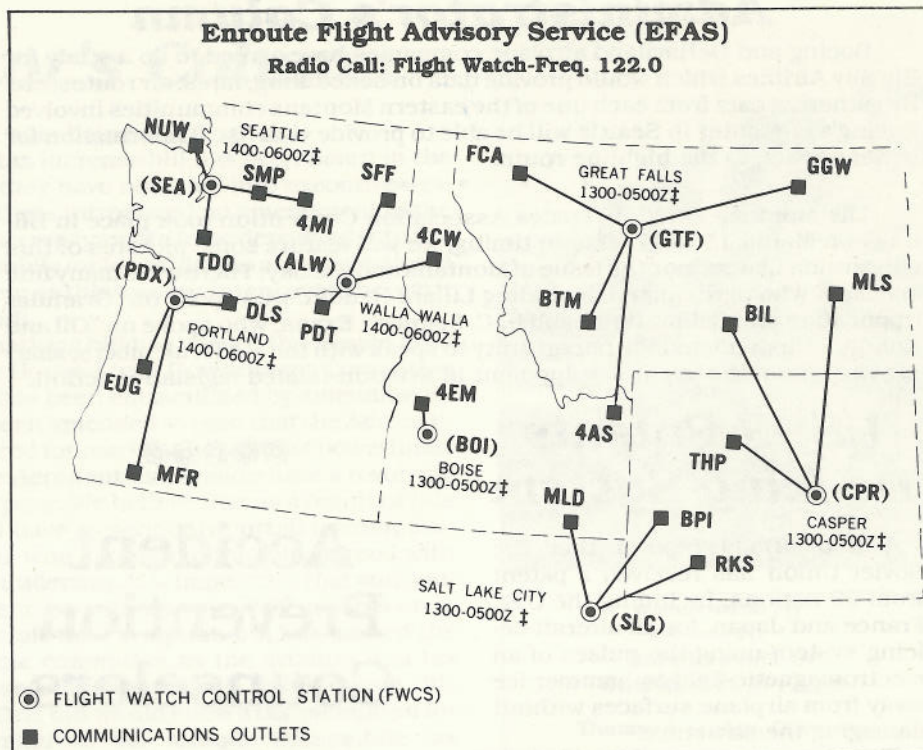
May 18-20 — MPA convention and annual meeting. Outlaw Inn, Kalispell.

June 1 — Yellowstone Airport, West Yellowstone, MT, re-opens for the season. For further information contact Ted Mathis, Montana Aeronautics Division, P.O. Box 5178, Helena, MT 59601 (406) 449-2506.

June 10 — Flying Farmers Fly-In Langhus Ranch.

August 5-10 — International Flying Farmers Convention in Oklahoma City.

October 5-7 — Montana Flying Farmers Convention, Wolf Point.



96th Congress

What will the 96th Congress do to affect business aircraft operation? Will there be more restraints and restrictions or will the deregulation movement that broke out last year continue? There are certain actions anticipated on the legislative horizon.

On energy, it is expected that the administration will propose phase II of its program. Unlike phase I, which concentrated on conservation and incentives for conservation, the administration should place its emphasis on the encouragement of energy production and energy development.

On taxes a revision of the Airport and Airways Development Act is possible. This act expires in 1980 and must be acted upon again if the provisions of the act are to continue. The administration is likely to propose revisions as part of airport legislation.

Tax committees' time will be devoted in a large measure to technical correction and revision of 1978 tax law, Social Security reform, National Health Care, sugar and

other trade related subjects.

There will probably be an attempt again this year at noise legislation with an appropriation from Congress to cover the cost of replacing old airline aircraft with newer, quieter ones. There was no aircraft noise legislation passed in the 95th Congress.

There should be some changes in airport legislation. The 1970 Airport and Airways Development Act expires in 1980. Its revision will provide the opportunity for major tinkering with the trust fund, excise taxes, ADAP and Facilities and Equipment programs.

Edward A. Deeds of Burlington, Vermont has been elected President of the National Pilots Association, replacing Robert Bryan who did not run for re-election.

* * * * *

The American Cup in hang gliding was captured by the British Team in competition held in Chattanooga, Tennessee last October. The U.S. Team was second. Canada came in third, and Japan fourth. The event was sanctioned by the USHGA.

Note: Billings/Laurel Flyers

The city of Laurel is sponsoring a Master Plan Study contracted to HKM and Associates of Billings. All users of the Billings and Laurel airport facilities should contact Mike Giglio, HKM and Associates, P.O. Box 31318, Billings, MT 59107. Or call collect (406) 245-6354 for a questionnaire. This information should be in no later than May 1.

Airport Directory Correction

On the Glasgow airport page of your 1979 Montana Airport Directory, the elevation is printed as 2993'. It should be 2293'. Please make this change in your directory.



Frontier Files Suit

Frontier Airlines, Inc., has filed an injunction against Custer County and the Montana Department of Revenue for what the suit charges are illegal assessment procedures of flight property.

The suit is related to action taken by the airline in December, 1977, when Frontier paid the first half of the 1977 taxes, \$2,221, under protest, and filed suit to recover all flight property taxes for 1977.

The suit charged that the Department of Revenue "arbitrarily and capriciously" changed its allocation formula rule for assessing flight property, thus failing to comply with existing state codes, records show.

The suit filed in District Court the end of January asks that 1978 flight property taxes be returned to Frontier and that the Department of Revenue be restrained from changing its rules without complying with state codes.



Passengers waiting to enplane on one of several Boeing 727 charters at Yellowstone Airport.

Jetblast

Every general aviation pilot who uses an airport which serves large jets should be aware of the potential safety hazard from those jet blast hurricanes. The danger area is to the rear of the jet engines and pilots should acquaint themselves with the blast forces in terms of distance behind a jet.

If you are 50 feet behind an idling three engine widebody jet, for instance, you are in a jet hurricane of 75 mph; but if you are 200 feet behind it when it applies breakaway power you are also in a 75 mph hurricane.

It might be well to clip the illustration which accompanies this article and keep it in your log book for reference.

(Nebraska Dept. of Aeronautics)

THREE ENGINE Wide Body Jet

POWER	DISTANCE BEHIND TAIL	EXHAUST VELOCITIES
IDLE	50 FT	75 MPH
IDLE	100 FT	45 MPH
BREAKAWAY	50 FT	200 MPH
BREAKAWAY	200 FT	75 MPH
BREAKAWAY	350 FT	45 MPH
TAKEOFF	150 FT	200 MPH
TAKEOFF	225 FT	150 MPH
TAKEOFF	350 FT	100 MPH
TAKEOFF	500 FT	75 MPH
TAKEOFF	630 FT	60 MPH
TAKEOFF	860 FT	45 MPH
TAKEOFF	1100 FT	35 MPH

FOUR ENGINE Wide Body Jet

POWER	DISTANCE BEHIND TAIL	EXHAUST VELOCITIES
IDLE	25 FT	50 MPH
IDLE	200 FT	35 MPH
BREAKAWAY	110 FT	80 MPH
BREAKAWAY	200 FT	65 MPH
BREAKAWAY	475 FT	35 MPH
TAKEOFF	100 FT	150 MPH
TAKEOFF	275 FT	100 MPH
TAKEOFF	425 FT	80 MPH
TAKEOFF	700 FT	65 MPH
TAKEOFF	1600 FT	50 MPH

New Safety Program for Pilots

The General Aviation Manufacturers Association has announced completion and initial distribution of a new series of slide-tape presentations on flying safety.

Developed as a cooperative project by GAMA and the Federal Aviation Administration, the new shows are designed for viewing by pilot audiences and cover all aspects of aviation safety. Key specialists from the ranks of GAMA member companies, working closely with the FAA, spent more than eighteen months putting together each of the presentations.

Complete sets of all fifteen presentations will be available at each GADO, nationwide, and the FAA says arrangements for viewing by interested audiences should be made through the Accident Specialist or Counselor at individual GADO's.

Additional sets of each program are available at a cost of \$18.00 per show (including postage and handling) to those individuals or organizations who wish to purchase and keep the new safety shows.

Each set consists of 35-mm color slides, a pulsed tape-cassette, soundtrack script, plus fifty printed handouts for use by viewing audiences. The handouts are designed to minimize the need to take notes, and provide a take-home review of significant safety points. These programs can be ordered from GAMA, Suite 517, 1025 Connecticut Avenue, N.W., Washington, D.C. 20036.

Aftermath of San Diego



By: Sam Griggs, Supervisor Aviation and Space Education

To explain the sweeping changes that are being proposed by the Federal Aviation Administration in airspace control, a brief explanation follows of what controlled airspace is and the various types of control required.

Controlled airspace is airspace under the direct supervision of one or more segments of Air Traffic Control (ATC), the ground-based highway patrol of the FAA. Controlled airspace is supported by ground/air communication, navigational aids, and air traffic services.

The Continental Control Area is all airspace roughly at and above 14,500 feet above sea level.

Control Areas are usually navigational routes or airways that extend from 1,200 feet above ground level to the Continental Control Area.

Transition Areas are controlled airspace segments usually in the vicinity of airports that lower the controlled airspace of airways to 700 feet above the ground.

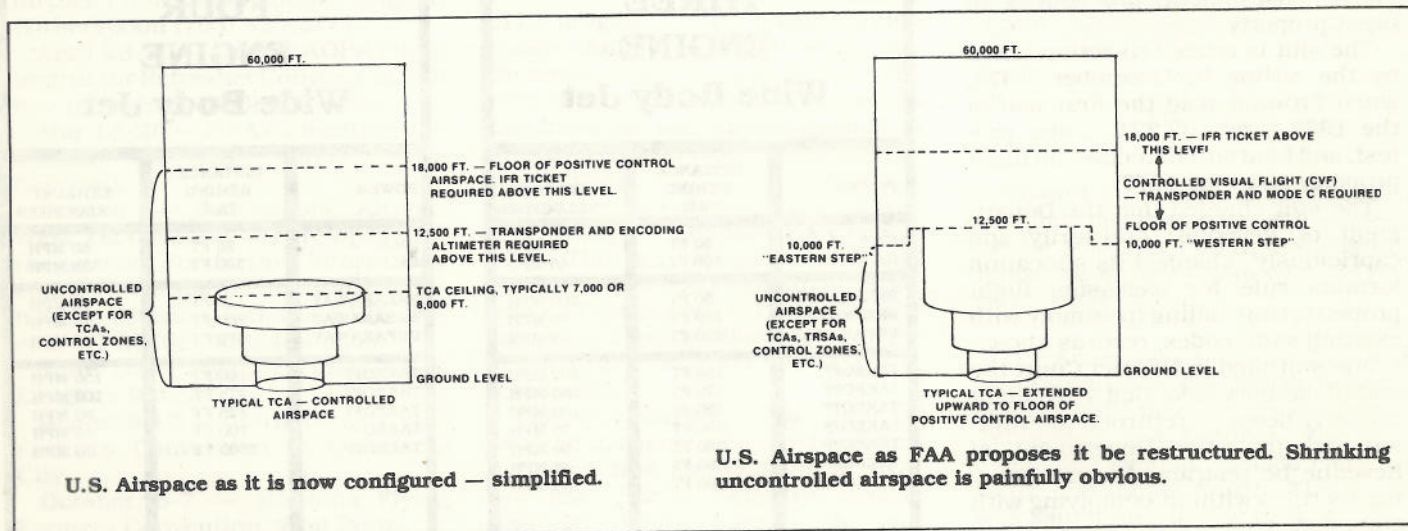
Control Zones are controlled airspace surrounding one or more airports extending from the ground to the Continental Control Area. These are normally a circular area with a radius of five miles.

Airport Traffic Area is controlled airspace surrounding an operating control tower, within the limits of the Control Zone, but extending from the surface to, but not including 3,000 feet.

Positive Control Area is roughly all airspace from 18,000 feet to 60,000 feet. All traffic in this block must be on an IFR Flight Plan.

A **Terminal Control Area** is controlled airspace surrounding one or more airports within which all aircraft are subject to specific pilot and equipment rules. These TCAs are broken down into three categories by the area percentage of nationally enplaned passengers:

1. **Group III TCA or Stage III Radar Service** is provided at the option of the pilot. It provides radar vectoring, sequencing, separation between participating aircraft, and advisories on all unidentified aircraft. To enter this TCA, a transponder and/or two-way



communication is required. There are now 84 Group III TCAs serving 105 airports around the nation. The new FAA changes would bring an additional 80 Group IIIs into existence, including Billings and Great Falls (to be in operation by December, 1979).

2. **Group II TCA** is controlled airspace requiring a clearance to enter, an operable VOR or Tacan receiver, two-way communication and transponder. Establishment of the additional Group II TCAs would be made possible with the new criteria (1% of nationally enplaned passengers changed to .25%). 44 new ones would be added.

3. **Group I TCA** is controlled airspace requiring a clearance to enter two-way communication, necessitating at least a private license to land or depart from an airport within the TCA, a VOR receiver, and a transponder with altitude reporting mode.

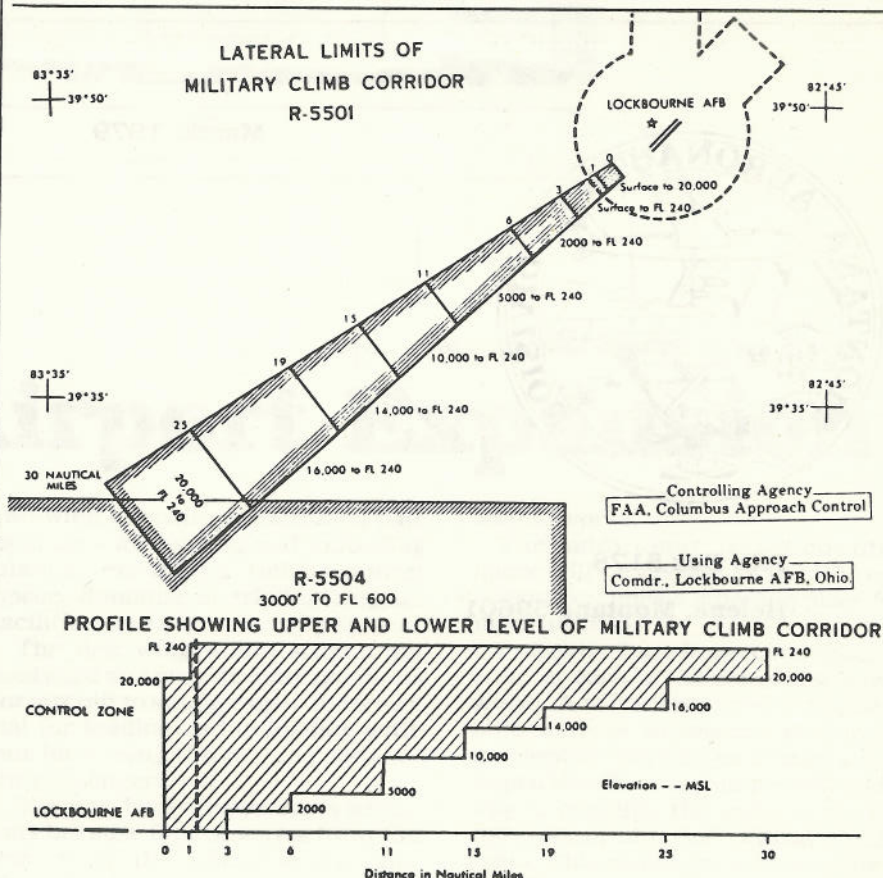
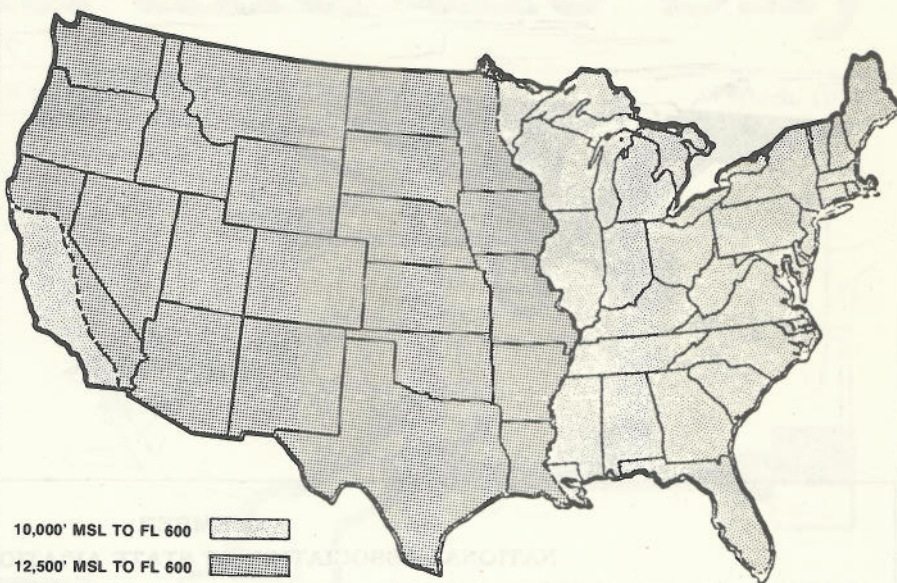
The new criteria the FAA proposes would lower the Positive Control Area (PCA) from 18,000 feet to 10,000 feet in the east and parts of the west coast. The rest of the country would have a 12,500 feet floor. This new layer of PCA called Controlled Visual Flight (CVF) concept allows VFR flight if equipped with a transponder and altitude encoder. Pilots would have to file a flight plan and get a clearance to enter.

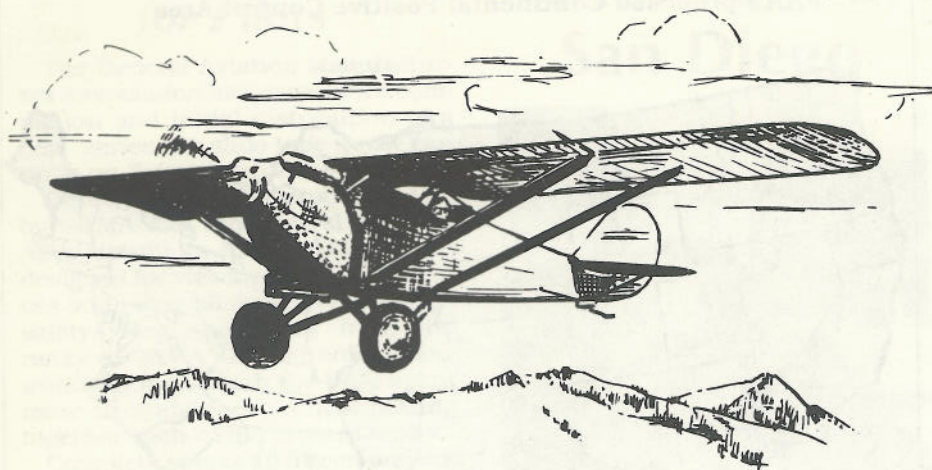
The tops of all TCAs would, under the new concept, extend to the PCA. A transponder and altitude encoder would also be required in all controlled airspace by July, 1981.

All airlines and air taxi aircraft would be required to carry collision avoidance systems after January, 1985. The estimates for new controllers runs into the thousands and the cost for new equipment into the millions.

Some may have never seen a graphic depiction of a military climb corridor. This is one from a 1965 sectional chart. Note how little airspace is taken compared to a latter day TCA... even with another corridor off the opposite end of the runway. The FAA should restructure most of its TCA's in a similar fashion. A few, such as Chicago with its multiplicity of runways, probably would not be adaptable, but most all Group IIs would be.

FAA's proposed Continental Positive Control Area





Only \$1.00

Please note that all Montana pilots must be registered no later than April 1, 1979, to avoid penalty charges. Contact our office for the proper forms. It only costs \$1.00!

Pilot Aids

Montana Aeronautical Chart	\$2.00
Montana Airport Directory: Loose leaf binder	\$1.00
Insert	\$1.00
Annual Subscription to Montana and the Sky	\$1.50

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March, 1979



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